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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/620,177	07/20/2000	James W. Shade	CTH / 108	3895

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EXAMINER

KING, BRADLEY T

ART UNIT

PAPER NUMBER

3613

DATE MAILED: 01/29/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.  
09/620,177

Applicant(s)  
Shade et al

Examiner  
Bradley King

Art Unit  
3613



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on Nov 16, 2001
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some\* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

- 15) ☐ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_
- 18) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: \_\_\_\_\_

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## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 4-5, 21-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 4 and 5 recite "said flange". There is insufficient antecedent basis for this limitation in the claims.

Claim 21 recites "a rigid corrugation", and then later recites "an annular corrugation", and further recites "said corrugation". It is unclear how many corrugations are being claimed and which corrugation corresponds to "said corrugation".

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-5, 7-10, 19 and 21-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Brinegar.

Brinegar discloses all the limitations of the instant claims including: a pipe coupling having a generally cylindrical sleeve having first and second sides, at least one annular corrugation 18 on the first side of the sleeve being adapted to cooperatively engage the annular corrugation 19 on the first pipe section end, and a bell on the second side being adapted to slidably receive in an axial direction the second pipe section end within the sleeve.

Regarding claim 10, see column 4, lines 26-32.

5. Claims 1, 3-8, 10-12, 15-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Claes et al (US # 5326138).

Claes et al disclose all the limitations of the instant claims including: a pipe coupling having a generally cylindrical sleeve C, having first and second sides, at least one annular corrugation (44 or 10) on the first side of the sleeve being adapted to cooperatively engage the annular corrugation on the first pipe section end, and a bell on the second side being adapted to slidably receive in an axial direction the second pipe section end within the sleeve.

Regarding claims 3-5 and 15-17, Claes et al disclose a radially inwardly directed annular projection 44 (see figure 7).

Regarding claim 12, Claes et al disclose a fluted gasket 30.

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6. Claim 21 is rejected under 35 U.S.C. 102(b) as being anticipated by Boynton et al.

Boynton et al disclose all the limitations of the instant claims including: a method of interconnecting adjacent ends of first and second pipe sections by providing a substantially flat sheet, forming a rigid corrugation 18 across the width of the flat sheet, wrapping the sheet into a cylindrical sleeve including a first side having an annular corrugation 18 oriented perpendicular to a longitudinal axis of the sleeve and a second side having a bell, and securing the sleeve about a first pipe section end by cooperatively engaging the corrugation of the sleeve with the annular corrugation of the first pipe section end. See column 4, lines 45-49 and figures 4 and 7.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-2, 7-10 and 18-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shade.

Shade discloses all the limitations of the instant claims with exception to an annular corrugation being oriented perpendicular to a longitudinal axis of the sleeve. Instead, Shade discloses a spiral corrugation. Shade further suggests that the coupler may be used on non-spiral

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pipe. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the corrugation of Shade to be oriented perpendicular to a longitudinal axis of the sleeve so that the coupler can be used to connect different types of pipe.

Regarding claims 21-24, Shade lacks the method of forming the sleeve from a flat sheet. It is well known in the art to form couplings from sheet material. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to form the coupling of Shade from a flat sheet as an obvious manufacturing process allowing the use of inexpensive sheet material, reducing the costs of the device.

Claims 3-5, and 11-17 rejected under 35 U.S.C. 103(a) as being unpatentable over Shade as applied to claims 1 and 8 above, in further view of Claes et al (US # 5415436).

Shade discloses all the limitations of the instant claims with exception to the annular inwardly directed projection. Claes et al teach an annularly extending projection 64 to provide a positive retention force on pipe sections. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to include a projection as taught by Claes et al in the coupling of Shade to increase the retention capabilities of the coupling.

Regarding claims 11-13, Shade discloses all the limitations with exception to the fluted gasket. Claes et al teach a fluted gasket 30 which that is easily deformable and provides a sufficient seal. It would have been obvious to a person of ordinary skill in the art at the time the

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invention was made to further include the gasket of Claes et al in the coupling of Shade increase the sealing capabilities of the coupling.

Regarding claim 14, Shade discloses a flat gasket 42.

9. Claims 2, 9, 20-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Claes et al (US # 5326138).

Claes et al disclose all the limitations of the instant claims with exception to forming the sleeve from a flat sheet. It is well known in the art to form couplings from sheet material. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to form the coupling of Claes et al from a flat sheet as an obvious manufacturing process allowing the use of inexpensive sheet material, reducing the costs of the device.

### ***Response to Arguments***

10. Applicant's arguments filed 11/16/01 have been fully considered but they are not persuasive.

With regards to Claes et al lacking an annular corrugation to secure the tubing section ends, the claim language used in claim 3 of the instant application is noted. Specifically, claim 3 requires "an annular projection adapted to engage and retain said second pipe section end within the bell". This feature is illustrated in figure 1c, reference number 43. It is unclear how this

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corrugation is different from the corrugations of Claes et al (both 5326138 and 5415436 share this feature).

With regards to Boynton et al, applicant contends that the reference lacks a coupling adapted to slidably receive the second pipe section. Claim 21 fails to recite this limitation, therefore the rejection of that claim over Boynton et al has been maintained.

### *Conclusion*

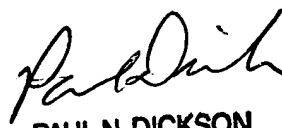
11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.



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12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bradley King whose telephone number is (703)308-8346.

  
PAUL N. DICKSON  
PRIMARY EXAMINER

1/28/02

BTK

January 27, 2002